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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/530,967 | 05/09/2005 | Dietmar Berger | SB_516 | 2252 |
| 24131 | 7590 | 10/16/2006 | EXAMINER | |
| LERNER GREENBERG STEMER LLP | | | ABDELWAHED, ALI F | |
| P O BOX 2480 | | | ART UNIT | |
| HOLLYWOOD, FL 33022-2480 | | | PAPER NUMBER | |

3722

DATE MAILED: 10/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/530,967

Applicant(s)

BERGER ET AL.

Examiner

Ali Abdelwahed

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 9/14/06.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application
- ☐ Other: _____.

DETAILED ACTION

The indicated allowability of claim 27 is withdrawn in view of the newly discovered reference(s) to Holmes et al. Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 21-26, 28, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,607,988 to Salm et al.

Salm et al. discloses a cutting tool comprising a drill shank (2) defining a drill axis (26) and a cutting head which is an interchangeable cutting insert (1) configured for mounting to the cutting tool (via reference #21) and being disposed at the end of the cutting tool (see fig.1) and having a straight, front cutting edge (8) being disposed at an angle of less than 90° with respect to the drill axis (see fig.1, cutting edge is slightly tilted inwardly from the perpendicular to the drill axis) and running continuously straight substantially transversely with respect to and at least as far as the drill axis (see fig.1). An adjacent straight lateral cutting edge (7) being disposed at an angle of more than 90° with respect to the drill axis (see fig.1, cutting edge is slightly tilted outwardly from the perpendicular to the drill axis), and merging into a straight rear cutting edge (9) which is

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disposed at an angle of less than 90° with respect to the drill axis (see fig.1, cutting edge is slightly tilted inwardly with respect to the drill axis) and running substantially transversely with respect to the drill axis (see fig.1). The lateral cutting edge being formed on a section (10) of the cutting head projecting from the drill shank by a height having a value between 5% and 40% of a drill diameter and having a width having a value between 5% and 40% of the drill diameter, and a ratio of the height to the width lying in a range from substantially 1:0.7 to 1:1.3 (see figs.1, 2; the projection 10 is seen to have a height of about 20% of the drill diameter, and a width of about 30% of the drill diameter, and the height to width ratio being 1:0.9). The section projects from the drill shank by a height having a value between 5% and 30% of a drill diameter and having a width having a value between 10% and 30% of the drill diameter (see figs.1, 2; the projection 10 is seen to have a height of about 20% of the drill diameter, and a width of about 30% of the drill diameter).

However, Salm et al. fails to teach the front cutting edge being disposed at an angle of about 89.5° with respect to the drill axis, the lateral cutting edge being disposed at an angle of about 91° with respect to the drill axis, and the rear cutting edge being disposed at an angle of about 89° with respect to the drill axis. Nevertheless, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the tool of Salm et al. with the front cutting edge being disposed at an angle of about 89.5° with respect to the drill axis, the lateral cutting edge being disposed at an angle of about 91° with respect to the drill axis, and the rear cutting edge being disposed at an angle of about 89° with respect to the drill axis, since it has been held

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that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Salm et al. in view of U.S. Patent No. 2,773,672 to Holmes et al.

Salm et al. discloses the claimed invention except for the front cutting edge having a cutting edge section beyond the drill axis enclosing an angle between 5° and 20° with the perpendicular to the drill axis. However, Holmes et al. teaches a cutting tool (11) comprising a cutting insert (C) with the front cutting edge (31) having a cutting edge section (32) beyond the drill axis (20) enclosing an angle between 5° and 20° with the perpendicular to the drill axis (see fig. 4). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the tool of Salm et al., in view of Holmes et al., such that it would provide the tool of Salm et al. with the concept of the aforementioned limitations for the purpose of enhancing the stability of the cutting tool.

Claims 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salm et al. in view of U.S. Patent No. 6,053,672 to Satran et al.

Salm et al. discloses the claimed invention except for the interchangeable cutting insert being formed as a reversible cutting plate with a substantially rectangular outline being a substantially square outline formed with two projecting sections disposed opposite each other in an inverted mirror-image relationship. However, Satran et al.

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teaches a cutting tool (100) comprising an interchangeable cutting insert (1) being formed as a reversible cutting plate with a substantially rectangular outline being a substantially square outline (see figs. 2, 13) formed with two projecting sections (10A, 10B) disposed opposite each other in an inverted mirror-image relationship (see figs. 2, 13). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the tool of Salm et al., in view of Satran et al., such that it would provide the tool of Salm et al. with the concept of the aforementioned limitations for the purpose of increasing the life of the cutting insert, thereby providing a more economical cutting insert.

Response to Arguments

Applicant's arguments with respect to claims 21-31 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's submission of an information disclosure statement under 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p) on September 14, 2006 prompted the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 609.04(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ali Abdelwahed whose telephone number is (571) 272-4417. The examiner can normally be reached Monday through Friday from 10:00 A.M. to 6:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Monica S. Carter can be reached on (571) 272-4475.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the examiner or the examiner's supervisor.

AA
10/10/2006


MONICA CARTER
SUPERVISORY PATENT EXAMINER